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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,322	09/22/2003	Edward J. Cheal	APK-001.02	2321

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EXAMINER

STEWART, ALVIN J

ART UNIT	PAPER NUMBER
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3738

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 10/605,322		Applicant(s) CHEAL ET AL	
Examiner Alvin J Stewart		Art Unit 3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 13-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 13-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 9 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell US Patent 5,906,644 in view of Fernandez et al US Patent 6,319,286 B1.

Powell discloses a joint prosthesis comprising a head member (see col. 2, lines 25-31), a neck member (20), a base, a plug (23), a spigot (22) having a first and second substantially cylinders (see attachment), a stem member (24), a proximal end (52), a stem bore (28) (see Fig. 7) having a friction-tight-press-fit (see col. 5, lines 20-26) and a shaft (12).

Regarding claims 2 and 13, see aperture-receiving bolt 36 (see Fig. 3).

Regarding claim 9, see Figures 1-3.

Fernandez et al teaches a modular hip prosthesis comprising a base (20), a stem member (30) and a shaft (16). The base has a spigot having a first cylinder (24) adjacent the base and a second cylinder (26) for the purpose of lockingly engage the spigot to the bore of the stem member (see col. 4, lines 62-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the substantially cylindrical spigots of the Powell reference with the first and second cylinders (24 & 26) of the Fernandez et al reference in order to engage the spigot to the bore of the stem member.

Claims 3, 4, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell US Patent 5,906,644 in view of Fernandez et al US Patent 6,319,286 B1 and further in view of Murphy US Patent 5,653,764.

Powell as modify by Fernandez et al discloses the invention substantially as claimed. However, Powell does not disclose a plurality of receptacles on the neck member to receive a key protruding from the proximal end.

Murphy teaches a joint implant comprising a modular member divided in two parts the implant is selectable to different orientations. A first member has a plurality of keys and a second member has a plurality of apertures so the implant can have different angular configurations (see Figs. 8 & 9; and col. 6, lines 52-60) for the purpose of preventing any relative angular motion between the stem portion and the neck portion.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Powell reference with the Murphy selectable angular orientation implant in order to prevent any relative angular motion between the stem portion and the neck portion.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Powell US Patent 5,906,644 in view of Fernandez et al US Patent 6,319,286 B1 and further in view of Luman US Patent 5,002,578.

Powell as modify by Fernandez et al discloses the invention substantially as claimed. However, Powell does not disclose a transition zone of tapering diameter between the first and the second cylinder.

Luman discloses a modular implant (10) comprising a spigot (40) coming out from the base of a neck member (14) comprising first and second cylinders (44 & 42). Figure 3 discloses a tapered transition surface between the first and the second cylinders for the purpose of avoiding the concentration of stresses in one single point.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Powell reference with the Luman reference in order to avoid the concentration of stresses in one single point. Tapered transitions are well known in the mechanical art (e.g. bolts, cantilever structures, etc.).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Powell US Patent 5,906,644 in view of Fernandez et al US Patent 6,319,286 B1 and further in view of Jacobs et al US Patent 5,080,674.

Powell as modified by Fernandez et al discloses the invention substantially as claimed. However, Powell does not disclose a protrusion fixedly located in the stem bore and an axially oriented slot.

Jacobs et al discloses a protrusion (18) on a bore (14) having a spigot (36) with an axially oriented slot (see Figs. 7-9) for the purpose of resisting the subsequent separation of the post from the bore.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Powell reference with the Jacobs et al reference in order to resist the subsequent separation of the post from the bore.

Claims 7, 8, 19 and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell US Patent 5,906,644 in view of Fernandez et al US Patent 6,319,286 B1 and further in view of McTighe et al US Patent 5,653,765.

Powell as modify by Fernandez et al discloses the invention substantially as claimed. However, Powell does not disclose a plurality of tines defined by slots and the slots form an acute angle.

McTighe et al teaches a modular implant comprising a plurality of tines defined by slots (25 & 27) for the purpose of providing flexibility in torsion, flexibility in different planes, reduce hoop stress and reduce thigh pain (see col. 5, lines 60-67 and col. 6, lines 1-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Powell reference with the McTighe et al reference in order to provide flexibility in torsion, flexibility in different planes, reduce hoop stress and reduce thigh pain.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the tines and slot of the McTighe et al by having at least three tines defined by slots in the shaft, the slots forming an acute angle because Applicant has not disclosed that the three slots forming an acute angle provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the four 90° angle slots shown in Figure 2 because the McTighe et al reference will perform equally well with the four elongated slots as shown in Figure 2 because it will provide the same intended use

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as the applicants' invention (e.g. it will provide flexibility in torsion, flexibility in different planes, reduce hoop stress and reduce thigh pain).

Therefore, it would have been an obvious matter of design choice to modify the McTighe et al reference to obtain the invention as specified in claim 19.

Response to Arguments

Applicant's arguments filed March 13, 2005 have been fully considered but they are not persuasive.

- The Applicant's representative has positively claimed the friction-tight press fit.
- The Examiner is adding a new reference in order to show that the spigot has two cylinders instead of a substantially cylindrical shape (see col. 3, lines 7-8 and col. 4, lines 54-55).
- Finally, the Applicant's representative has discloses in the specification that the two cylinders can have a substantially cylindrical shape (see paragraph 49, lines 14-17). Therefore, is not a critical part of the invention to have two cylinders with an exact cylindrical shape. Therefore, the Examiner still believes that the Powell reference is capable of reading two cylinders because the Applicant's specification is broad enough to read on a substantially cylindrical element.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J Stewart whose telephone number is 703-305-0277. The examiner can normally be reached on Monday-Friday 7:00AM-5:30PM(1 Friday B-week off).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 703-308-2111. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ALVIN J. STEWART
PRIMARY EXAMINER
Art Unit 3738

May 10, 2005.